

## SEQUENCE LISTING

<110> Burns, Jennifer M. Summers, Bretton Howard, Maureen C. Schall, Thomas J. ChemoCentryx, Inc. <120> Compositions and Methods for Detecting and Treating Diseases and Conditions Related to Chemokine Receptors <130> 019934-003360US <140> US 10/698,541 <141> 2003-10-30 <150> US 60/337,961 <151> 2001-11-30 <150> US 60/338,100 <151> 2001-11-30 <150> US 10/245,850 <151> 2002-09-16 <150> US 60/434,912 <151> 2002-12-20 <150> US 10/452,015 <151> 2003-05-30 <160> 10 <170> PatentIn Ver. 2.1 <210> 1 <211> 1089 <212> DNA <213> Homo sapiens <223> G-protein coupled receptor (GPCR) CCX-CKR2 (RDC1) coding sequence atggatctgc atctcttcga ctactcagag ccagggaact tctcggacat cagctggcca 60 tgcaacagca gcgactgcat cgtggtggac acggtgatgt gtcccaacat gcccaacaa 120 agegteetge tetacaeget eteetteatt tacattttea tettegteat eggeatgatt 180 gccaactccg tggtggtctg ggtgaatatc caggccaaga ccacaggcta tgacacgcac 240 tqctacatct tqaacctgqc cattgccgac ctgtgggttg tcctcaccat cccagtctgg 300 gtggtcagtc tcgtgcagca caaccagtgg cccatgggcg agctcacgtg caaagtcaca 360 cacctcatct tetecateaa eetettegge ageattttet teeteaegtg catgagegtg 420 gaccgctacc tctccatcac ctacttcacc aacaccccca gcagcaggaa gaagatggta 480 egeogtgteg tetgeateet ggtgtggetg etggeettet gegtgtetet geetgacace 540 tactacctga agaccgtcac gtctgcgtcc aacaatgaga cctactgccg gtccttctac 600 cccqaqcaca qcatcaagga gtggctgatc ggcatggagc tggtctccgt tgtcttgggc 660 tttqccqttc ccttctccat tatcgctgtc ttctacttcc tgctggccag agccatctcg 720 qcqtccaqtq accaggagaa gcacagcagc cggaagatca tcttctccta cgtggtggtc 780 ttccttgtct gctggctgcc ctaccacgtg gcggtgctgc tggacatctt ctccatcctg 840 cactacatcc ctttcacctg ccggctggag cacgccctct tcacggccct gcatgtcaca 900

cagtgcctgt cgctggtgca ctgctgcgtc aaccctgtcc tctacagctt catcaatcgc 960

aactacaggt acgagctgat gaaggccttc atcttcaagt actcggccaa aacagggctc 1020 accaagctca tcgatgcctc cagagtctca gagacggagt actctgcctt ggagcagagc 1080 accaaatga

<210> 2 <211> 362 <212> PRT <213> Homo sapiens <220> <223> G-protein coupled receptor (GPCR) CCX-CKR2 (RDC1) Met Asp Leu His Leu Phe Asp Tyr Ser Glu Pro Gly Asn Phe Ser Asp Ile Ser Trp Pro Cys Asn Ser Ser Asp Cys Ile Val Val Asp Thr Val Met Cys Pro Asn Met Pro Asn Lys Ser Val Leu Leu Tyr Thr Leu Ser Phe Ile Tyr Ile Phe Ile Phe Val Ile Gly Met Ile Ala Asn Ser Val Val Val Trp Val Asn Ile Gln Ala Lys Thr Thr Gly Tyr Asp Thr His Cys Tyr Ile Leu Asn Leu Ala Ile Ala Asp Leu Trp Val Val Leu Thr Ile Pro Val Trp Val Val Ser Leu Val Gln His Asn Gln Trp Pro Met 105 Gly Glu Leu Thr Cys Lys Val Thr His Leu Ile Phe Ser Ile Asn Leu 120 Phe Gly Ser Ile Phe Phe Leu Thr Cys Met Ser Val Asp Arg Tyr Leu 130 135 Ser Ile Thr Tyr Phe Thr Asn Thr Pro Ser Ser Arg Lys Lys Met Val 150 155 Arg Arg Val Val Cys Ile Leu Val Trp Leu Leu Ala Phe Cys Val Ser Leu Pro Asp Thr Tyr Tyr Leu Lys Thr Val Thr Ser Ala Ser Asn Asn Glu Thr Tyr Cys Arg Ser Phe Tyr Pro Glu His Ser Ile Lys Glu Trp Leu Ile Gly Met Glu Leu Val Ser Val Val Leu Gly Phe Ala Val Pro 215 Phe Ser Ile Ile Ala Val Phe Tyr Phe Leu Leu Ala Arg Ala Ile Ser Ala Ser Ser Asp Gln Glu Lys His Ser Ser Arg Lys Ile Ile Phe Ser 245 250

```
Tyr Val Val Val Phe Leu Val Cys Trp Leu Pro Tyr His Val Ala Val
            260
                                265
Leu Leu Asp Ile Phe Ser Ile Leu His Tyr Ile Pro Phe Thr Cys Arg
        275
                            280
Leu Glu His Ala Leu Phe Thr Ala Leu His Val Thr Gln Cys Leu Ser
                        295
Leu Val His Cys Cys Val Asn Pro Val Leu Tyr Ser Phe Ile Asn Arg
                    310
                                        315
Asn Tyr Arg Tyr Glu Leu Met Lys Ala Phe Ile Phe Lys Tyr Ser Ala
                325
                                    330
Lys Thr Gly Leu Thr Lys Leu Ile Asp Ala Ser Arg Val Ser Glu Thr
                                345
Glu Tyr Ser Ala Leu Glu Gln Ser Thr Lys
<210> 3
<211> 1089
<212> DNA
<213> Homo sapiens
<220>
<223> G-protein coupled receptor (GPCR) CCX-CKR2.2
      coding sequence
<400> 3
atggatetge acctettega etaegeegag ceaggeaact teteggaeat eagetggeea 60
tgcaacagca gcgactgcat cgtggtggac acggtgatgt gtcccaacat gcccaacaa 120
agegteetge tetacaeget etectteatt tacattttea tettegteat eggeatgatt 180
gccaactccg tggtggtctg ggtgaatatc caggccaaga ccacaggcta tgacacgcac 240
tgctacatct tgaacctggc cattgccgac ctgtgggttg tcctcaccat cccagtctgg 300
gtggtcagtc tcgtgcagca caaccagtgg cccatgggcg agctcacgtg caaagtcaca 360
cacctcatct tetecateaa cetetteage ggeattttet teeteaegtg catgagegtg 420
gaccgctacc tetecateac etactteace aacaceeeca geageaggaa gaagatggta 480
cgccgtgtcg tctgcatcct ggtgtggctg ctggccttct gcgtgtctct gcctgacacc 540
tactacctga agaccgtcac gtctgcgtcc aacaatgaga cctactgccg gtccttctac 600
cccgagcaca gcatcaagga gtggctgatc ggcatggagc tggtctccgt tgtcttgggc 660
tttgccgttc ccttctccat tatcgctgtc ttctacttcc tgctggccag agccatctcg 720
gcgtccagtg accaggagaa gcacagcagc cggaagatca tcttctccta cgtggtggtc 780
ttccttgtct gctggctgcc ctaccacgtg gcggtgctgc tggacatctt ctccatcctg 840
cactacatcc ctttcacctg ccggctggag cacgccctct tcacggccct gcatgtcaca 900
caqtqcctqt cqctqgtqca ctqctqcqtc aaccctqtcc tctacaqctt catcaatcqc 960
aactacaqqt acqaqctqat gaaggccttc atcttcaagt actcggccaa aacagggctc 1020
accaagetea tegatgeete cagagtgteg gagaeggagt acteegeett ggageaaaac 1080
gccaagtga
<210> 4
<211> 362
<212> PRT
<213> Homo sapiens
<223> G-protein coupled receptor (GPCR) CCX-CKR2.2
```

Met Asp Leu His Leu Phe Asp Tyr Ala Glu Pro Gly Asn Phe Ser Asp Ile Ser Trp Pro Cys Asn Ser Ser Asp Cys Ile Val Val Asp Thr Val Met Cys Pro Asn Met Pro Asn Lys Ser Val Leu Leu Tyr Thr Leu Ser Phe Ile Tyr Ile Phe Ile Phe Val Ile Gly Met Ile Ala Asn Ser Val Val Val Trp Val Asn Ile Gln Ala Lys Thr Thr Gly Tyr Asp Thr His Cys Tyr Ile Leu Asn Leu Ala Ile Ala Asp Leu Trp Val Val Leu Thr Ile Pro Val Trp Val Val Ser Leu Val Gln His Asn Gln Trp Pro Met 105 Gly Glu Leu Thr Cys Lys Val Thr His Leu Ile Phe Ser Ile Asn Leu Phe Ser Gly Ile Phe Phe Leu Thr Cys Met Ser Val Asp Arg Tyr Leu Ser Ile Thr Tyr Phe Thr Asn Thr Pro Ser Ser Arg Lys Lys Met Val Arg Arg Val Val Cys Ile Leu Val Trp Leu Leu Ala Phe Cys Val Ser Leu Pro Asp Thr Tyr Tyr Leu Lys Thr Val Thr Ser Ala Ser Asn Asn Glu Thr Tyr Cys Arg Ser Phe Tyr Pro Glu His Ser Ile Lys Glu Trp Leu Ile Gly Met Glu Leu Val Ser Val Val Leu Gly Phe Ala Val Pro 210 215 Phe Ser Ile Ile Ala Val Phe Tyr Phe Leu Leu Ala Arg Ala Ile Ser Ala Ser Ser Asp Gln Glu Lys His Ser Ser Arg Lys Ile Ile Phe Ser 250 245 Tyr Val Val Phe Leu Val Cys Trp Leu Pro Tyr His Val Ala Val 265 Leu Leu Asp Ile Phe Ser Ile Leu His Tyr Ile Pro Phe Thr Cys Arg 275 280 Leu Glu His Ala Leu Phe Thr Ala Leu His Val Thr Gln Cys Leu Ser 295

315

320

Leu Val His Cys Cys Val Asn Pro Val Leu Tyr Ser Phe Ile Asn Arg

310

Asn Tyr Arg Tyr Glu Leu Met Lys Ala Phe Ile Phe Lys Tyr Ser Ala 330 325 Lys Thr Gly Leu Thr Lys Leu Ile Asp Ala Ser Arg Val Ser Glu Thr 345 Glu Tyr Ser Ala Leu Glu Gln Asn Ala Lys 355 <210> 5 <211> 1089 <212> DNA <213> Homo sapiens <220> <223> G-protein coupled receptor (GPCR) CCX-CKR2.3 coding sequence <400> 5 atggatetge atetettega etaeteagag eeagggaaet teteggaeat eagetggeea 60 tgcaacagca gcgactgcat cgtggtggac acggtgatgt gtcccaacat gcccaacaaa 120 agegteetge tetacaeget eteetteatt tacattttea tettegteat eggeatgatt 180 gccaactccg tggtggtctg ggtgaatatc caggccaaga ccacaggcta tgacacgcac 240 tgctacatct tgaacctggc cattgccgac ctgtgggttg tcctcaccat cccagtctgg 300 gtggtcagtc tcgtgcagca caaccagtgg cccatgggcg agctcacgtg caaagtcaca 360 cacctcatct tetecateaa cetettegge ageattttet teeteaegtg catgagegtg 420 qaccqctacc tctccatcac ctacttcacc aacaccccca gcagcaggaa gaagatggta 480 eqecqtqteq tetqeatect ggtgtggetg etggeettet gegtgtetet geetgaeace 540 tactacctga agaccgtcac gtctgcqtcc aacaatgaga cctactgccg gtccttctac 600 cccqaqcaca qcatcaaqqa qtqqctqatc qqcatqqagc tggtctccgt tgtcttgggc 660 tttqccqttc ccttctccat tqtcqctqtc ttctacttcc tqctggccag agccatctcg 720 gcgtccagtg accaggagaa gcacagcagc cggaagatca tcttctccta cgtggtggtc 780 ttccttqtct qctqqttqcc ctaccacgtg gcggtgctgc tggacatctt ctccatcctg 840 cactacatcc ctttcacctg ccggctggag cacgccctct tcacggccct gcatgtcaca 900 cagtgcctgt cgctggtgca ctgctgcgtc aaccctgtcc tctacagctt catcaatcgc 960 aactacaggt acgagctgat gaaggccttc atcttcaagt actcggccaa aacagggctc 1020 accaagetea tegatgeete eagagtetea gagaeggagt actetgeett ggageagage 1080 accaaatga <210> 6 <211> 362 <212> PRT <213> Homo sapiens <223> G-protein coupled receptor (GPCR) CCX-CKR2.3 <400> 6 Met Asp Leu His Leu Phe Asp Tyr Ser Glu Pro Gly Asn Phe Ser Asp 5 10 Ile Ser Trp Pro Cys Asn Ser Ser Asp Cys Ile Val Val Asp Thr Val Met Cys Pro Asn Met Pro Asn Lys Ser Val Leu Leu Tyr Thr Leu Ser 40 Phe Ile Tyr Ile Phe Ile Phe Val Ile Gly Met Ile Ala Asn Ser Val

55

Val Val Trp Val Asn Ile Gln Ala Lys Thr Thr Gly Tyr Asp Thr His 70 Cys Tyr Ile Leu Asn Leu Ala Ile Ala Asp Leu Trp Val Val Leu Thr 90 Ile Pro Val Trp Val Val Ser Leu Val Gln His Asn Gln Trp Pro Met Gly Glu Leu Thr Cys Lys Val Thr His Leu Ile Phe Ser Ile Asn Leu 120 Phe Gly Ser Ile Phe Phe Leu Thr Cys Met Ser Val Asp Arg Tyr Leu 135 Ser Ile Thr Tyr Phe Thr Asn Thr Pro Ser Ser Arg Lys Lys Met Val 155 150 Arg Arg Val Val Cys Ile Leu Val Trp Leu Leu Ala Phe Cys Val Ser 170 Leu Pro Asp Thr Tyr Tyr Leu Lys Thr Val Thr Ser Ala Ser Asn Asn 185 Glu Thr Tyr Cys Arg Ser Phe Tyr Pro Glu His Ser Ile Lys Glu Trp Leu Ile Gly Met Glu Leu Val Ser Val Val Leu Gly Phe Ala Val Pro 215 Phe Ser Ile Val Ala Val Phe Tyr Phe Leu Leu Ala Arg Ala Ile Ser Ala Ser Ser Asp Gln Glu Lys His Ser Ser Arg Lys Ile Ile Phe Ser Tyr Val Val Val Phe Leu Val Cys Trp Leu Pro Tyr His Val Ala Val Leu Leu Asp Ile Phe Ser Ile Leu His Tyr Ile Pro Phe Thr Cys Arg 280 Leu Glu His Ala Leu Phe Thr Ala Leu His Val Thr Gln Cys Leu Ser 290 295 Leu Val His Cys Cys Val Asn Pro Val Leu Tyr Ser Phe Ile Asn Arg 310 Asn Tyr Arg Tyr Glu Leu Met Lys Ala Phe Ile Phe Lys Tyr Ser Ala 325 Lys Thr Gly Leu Thr Lys Leu Ile Asp Ala Ser Arg Val Ser Glu Thr 345 Glu Tyr Ser Ala Leu Glu Gln Ser Thr Lys

```
<211> 1089
<212> DNA
<213> Homo sapiens
<223> G-protein coupled receptor (GPCR) CCX-CKR2.4
      coding sequence
atggatetge atetettega etaeteagag ecagggaaet teteggaeat eagetggeea 60
tgcaacagca gcgactgcat cgtggtggac acggtgatgt gtcccaacat gcccaacaaa 120
agegteetge tetacaeget eteetteatt tacattttea tettegteat eggeatgatt 180
gccaactccg tggtggtctg ggtgaatatc caggccaaga ccacaggcta tgacacgcac 240
tgctacatct tgaacctggc cattgccgac ctgtgggttg tcctcaccat cccagtctgg 300
gtggtcagtc tcgtgcagca caaccagtgg cccatgggcg agctcacgtg caaagtcaca 360
cacctcatct tetecateaa cetettegge ageattttet teeteaegtg catgagegtg 420
gaccgctacc tctccatcac ctacttcacc aacaccccca gcagcaggaa gaagatggta 480
cgccgtgtcg tctgcatcct ggtgtggctg ctggccttct gcgtgtctct gcctgacacc 540
tactacctga agaccgtcac gtctgcgtcc aacaatgaga cctactgccg gtccttctac 600
cccgagcaca gcatcaagga gtggctgatc ggcatggagc tggtctccgt tgtcttgggc 660
tttgccgttc ccttctccat tatcgctgtc ttctacttcc tgctggccag agccatctcg 720
gcgtccagtg accaggagaa gcacagcagc cggaagatca tcttctccta cgtggtggtc 780
ttccttgtct gctggctgcc ctaccacgtg gcggtgctgc tggacatctt ctccatcctg 840
cactacatec ettteacetg ceggetggag caegecetet teaeggeeet geatgteaca 900
cagtgcctgt cgctggtgca ctgctgcgtc aaccctgtcc tctacagctt catcaatcgc 960
aactacaggt acgagctgat gaaggccttc atcttcaagt actcggccaa aacagggctc 1020
accaaqctca tcgatgcctc cagagtctca gagacggagt actctgcctt ggagcagagc 1080
accaaatga
<210> 8
<211> 362
<212> PRT
<213> Homo sapiens
<223> G-protein coupled receptor (GPCR) CCX-CKR2.4
<400> 8
Met Asp Leu His Leu Phe Asp Tyr Ser Glu Pro Gly Asn Phe Ser Asp
Ile Ser Trp Pro Cys Asn Ser Ser Asp Cys Ile Val Val Asp Thr Val
Met Cys Pro Asn Met Pro Asn Lys Ser Val Leu Leu Tyr Thr Leu Ser
         35
                             40
Phe Ile Tyr Ile Phe Ile Phe Val Ile Gly Met Ile Ala Asn Ser Val
Val Val Trp Val Asn Ile Gln Ala Lys Thr Thr Gly Tyr Asp Thr His
                     70
Cys Tyr Ile Leu Asn Leu Ala Ile Ala Asp Leu Trp Val Val Leu Thr
Ile Pro Val Trp Val Val Ser Leu Val Gln His Asn Gln Trp Pro Met
                                105
                                                     110
```

<210> 7

Phe Ser Ile Ile Ala Val Phe Tyr Phe Leu Leu Ala Arg Ala Ile Ser 225 230 235 240

Ala Ser Ser Asp Gln Glu Lys His Ser Ser Arg Lys Ile Ile Phe Ser 245 250 255

Tyr Val Val Phe Leu Val Cys Trp Leu Pro Tyr His Val Ala Val 260 265 270

Leu Leu Asp Ile Phe Ser Ile Leu His Tyr Ile Pro Phe Thr Cys Arg 275 280 285

Leu Glu His Ala Leu Phe Thr Ala Leu His Val Thr Gln Cys Leu Ser 290 295 300

Leu Val His Cys Cys Val Asn Pro Val Leu Tyr Ser Phe Ile Asn Arg 305 310 315 320

Asn Tyr Arg Tyr Glu Leu Met Lys Ala Phe Ile Phe Lys Tyr Ser Ala 325 330 335

Lys Thr Gly Leu Thr Lys Leu Ile Asp Ala Ser Arg Val Ser Glu Thr 340 345 350

Glu Tyr Ser Ala Leu Glu Gln Ser Thr Lys 355 360

<210> 9

<211> 1089

<212> DNA

<213> Homo sapiens

<220>

<223> G-protein coupled receptor (GPCR) CCX-CKR2.5
 coding sequence

400> 9

atggatctgc atctcttcga ctactcagag ccagggaact tctcggacat cagctggccg 60 tqcaacagca gcgactgcat cgtggtggac acggtgatgt gtcccaacat gcccaacaaa 120

agogtoctgo totacacgot oteottoatt tacattttoa tottogtoat oggoatgatt 180 gccaactccg tggtggtctq qqtqaatatc caqgccaaga ccacaggcta tgacacgcac 240 tgctacatct tgaacctggc cattgccgac ctgtgggttg tcctcaccat cccagtctgg 300 gtggtcagtc tcgtgcagca caaccagtgg cccatgggcg agctcacgtg caaagtcaca 360 cacctcatct tetecateaa cetetteage ageattttet teeteaegtg catgagegtg 420 gaccgctacc tctccatcac ctacttcacc aacaccccca gcagcaggaa gaagatggta 480 cgccgtgtcg tctgcatcct ggtgtggctg ctggccttct gcgtgtctct gcctgacacc 540 tactacetga agacegteac gtetgegtee aacaatgaga cetactgeeg gteettetac 600 cccgagcaca gcatcaagga gtggctgatc ggcatggagc tggtctccgt tgtcttgggc 660 tttgccgttc ccttctccat tatcgctgtc ttctacttcc tgctggccag agccatctcg 720 gcgtccagtg accaggagaa gcacagcagc cggaagatca tcttctccta cgtggtggtc 780 ttccttgtct gctggttgcc ctaccacgtg gcggtgctgc tggacatctt ctccatcctg 840 cactacatec ettteacetg eeggetggag caegecetet teaeggeeet geatgteaca 900 cagtgcctgt cgctggtgca ctgctgcgtc aaccctgtcc tctacagctt catcaatcgc 960 aactacaggt acgagctgat gaaggccttc atcttcaagt actcggccaa aacagggctc 1020 accaagetea tegatgeete cagagtetea gagaeggagt acteegeett ggageagage 1080 accaaatga

<210> 10 <211> 362 <212> PRT <213> Homo sapiens <223> G-protein coupled receptor (GPCR) CCX-CKR2.5 Met Asp Leu His Leu Phe Asp Tyr Ser Glu Pro Gly Asn Phe Ser Asp Ile Ser Trp Pro Cys Asn Ser Ser Asp Cys Ile Val Val Asp Thr Val Met Cys Pro Asn Met Pro Asn Lys Ser Val Leu Leu Tyr Thr Leu Ser Phe Ile Tyr Ile Phe Ile Phe Val Ile Gly Met Ile Ala Asn Ser Val Val Val Trp Val Asn Ile Gln Ala Lys Thr Thr Gly Tyr Asp Thr His 70 Cys Tyr Ile Leu Asn Leu Ala Ile Ala Asp Leu Trp Val Val Leu Thr Ile Pro Val Trp Val Val Ser Leu Val Gln His Asn Gln Trp Pro Met 110 100 . 105 Gly Glu Leu Thr Cys Lys Val Thr His Leu Ile Phe Ser Ile Asn Leu 120 Phe Ser Ser Ile Phe Phe Leu Thr Cys Met Ser Val Asp Arg Tyr Leu 135 Ser Ile Thr Tyr Phe Thr Asn Thr Pro Ser Ser Arg Lys Lys Met Val 150 Arg Arg Val Val Cys Ile Leu Val Trp Leu Leu Ala Phe Cys Val Ser

165

170

Leu Pro Asp Thr Tyr Tyr Leu Lys Thr Val Thr Ser Ala Ser Asn Asn 185 180 Glu Thr Tyr Cys Arg Ser Phe Tyr Pro Glu His Ser Ile Lys Glu Trp 200 Leu Ile Gly Met Glu Leu Val Ser Val Val Leu Gly Phe Ala Val Pro 215 Phe Ser Ile Ile Ala Val Phe Tyr Phe Leu Leu Ala Arg Ala Ile Ser Ala Ser Ser Asp Gln Glu Lys His Ser Ser Arg Lys Ile Ile Phe Ser Tyr Val Val Val Phe Leu Val Cys Trp Leu Pro Tyr His Val Ala Val 265 Leu Leu Asp Ile Phe Ser Ile Leu His Tyr Ile Pro Phe Thr Cys Arg Leu Glu His Ala Leu Phe Thr Ala Leu His Val Thr Gln Cys Leu Ser 295 Leu Val His Cys Cys Val Asn Pro Val Leu Tyr Ser Phe Ile Asn Arg Asn Tyr Arg Tyr Glu Leu Met Lys Ala Phe Ile Phe Lys Tyr Ser Ala 325 330 Lys Thr Gly Leu Thr Lys Leu Ile Asp Ala Ser Arg Val Ser Glu Thr Glu Tyr Ser Ala Leu Glu Gln Ser Thr Lys 360